FERAL EQUINE MANAGEMENT AT THE NAVAL WEAPONS CENTER

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ABSTRACT: Feral equines present a unique management problem for federal land managers. Although feral burros are an invader species introduced onto the North American Continent by 16th Century Spanish explorers, they have both State and Federal protection. Under the umbrella of this protection, feral burro populations exploded in the 1970s. By 1979 the Naval Weapons Center, China Lake, California, was being overrun by burros. Burros were destroying the desert environment and creating very real hazards to aircraft, vehicles and personnel. The Naval Weapons Center in an unprecedented move implemented an interim emergency removal program. A total of 1513 burros was removed under this program: 864 by live removal and 649 by direct reduction (shooting). Adverse national publicity followed the shooting phase of the emergency removal. Congress had determined in 1971 that wild burros were to be considered an integral part of the natural system of public lands. Had the Navy directly violated this statute? The Navy, beginning with this apparently no-win situation, was able to structure a joint long-term removal program involving the federal government and animal protection groups. Events had been turned around and the earlier no-win situation was now a win-win situation. It has been two years since the long-term removal program was negotiated. An additional 4387 burros have been removed alive. Burros left on base now number less than 200. The removal of 5900 burros has allowed the Naval Weapons Center to reintroduce the native ungulate, the Desert Bighorn Sheep. This culminated a four-year effort at the Naval Seapons Center to restore Center ranges to their natural condition.

In 1979 the Naval Weapons Center (Figure 1) was faced with an urgent problem. An exploding population of burros was overrunning the installation, creating a very real threat to human life as well as causing extensive environmental damage. Several factors complicated resolution of this problem.

(1) Burros are an introduced or exotic species turned loose in the deserts of the western United States by miners in the 19th Century when their mines played out. Despite this fact, Congress in 1971 declared burros to be living symbols of the West, and that they contribute to the diversity of life forms within the nation and enrich the lives of the American people. Further, it is the policy of Congress that wild free-roaming horses and burros shall be protected from unauthorized capture, branding, harassment, or death; that a healthy, wild, free-roaming horse and burro population base shall be maintained on the public lands; and that to accomplish this they are to be considered as an integral part of the natural system of the public lands and managed under the principle of multiple use (Public Law 92-195, the Wild Horse and Burro Act). In contrast to this Congressionally declared policy, the Naval Weapons Center wanted to remove wild burros as a pest species.

(2) Before the Wild Horse and Burro Act gave burros complete protection, their numbers were kept in check by sport-hunting and the use of their meat in food-processing. Being an exotic species there are no natural population controls. Under the umbrella of federal protection their numbers began to flourish in the 1970s (Figure 2). By the late 1970s large burro populations began causing serious safety and environmental problems--not only at the NWC, but desertwide from California to New Mexico.

(3) Despite the fact that federal land managers were beginning to recognize the seriousness of problems associated with wild herds of burros, the general public was not cognizant of the problems. Efforts by the National Park Service to control increased burro numbers were met with strong public opposition. Any burro removal effort at NWC would have similar high public visibility.

The Naval Weapons Center, as a federal agency, is tasked by law with full public disclosure prior to initiating an action which may affect the environment. The Park Service during the initial stages of burro removal problems at both the Bandelier National Monument (which had a total of 30 burros) and the Grand Canyon National Park (which had approximately 600 burros) met strong opposition (i.e., lengthy litigation to prevent the removal of feral burros from public lands) from various animal protection groups. A similar removal program on Navy lands would most likely not fare any better.

(4) Prior to the Naval Weapons Center's program there was no established system for the control of burros on public lands except on lands administered by the Bureau of Land Management. The full protection given these animals had resulted in an unexpected problem for which no recognized solution yet existed.

It was into this complex and sensitive situation that NWC had to initiate its burro removal program.

The first step in implementing a resources management plan is an evaluation of management options, including the necessary environmental evaluations. The Center initiated its long-term burro management efforts in late 1979.

While field studies to assess the impact of burros were in progress, it became apparent that there was a requirement for some immediate action. In order to prevent accidents between burros and Navy personnel in vehicles and aircraft (Figures 3 and 4), an interim emergency reduction program was initiated. The emergency program was independent of the long-term management program but was conducted concurrently with the development of the long-term plan.

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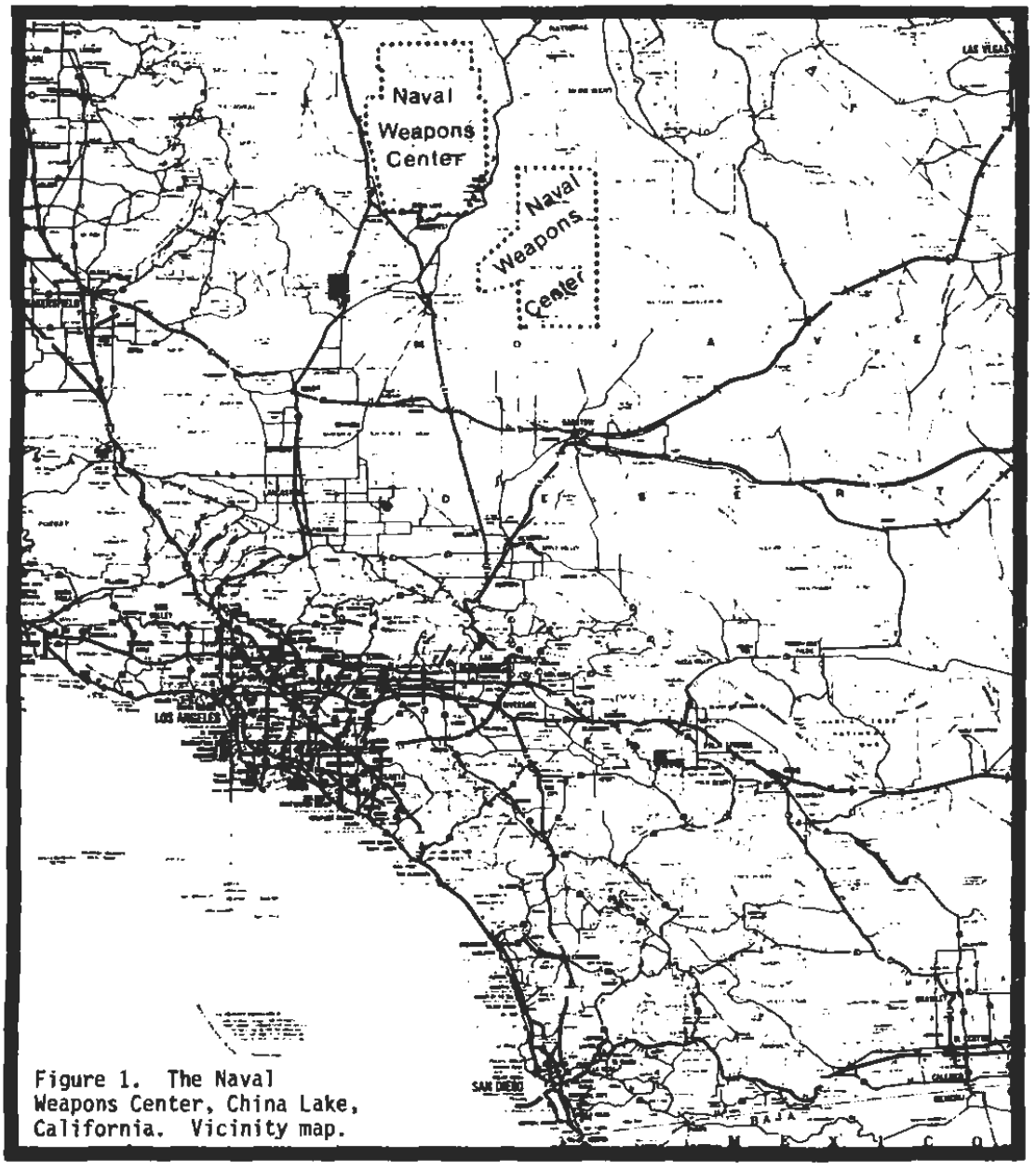

Figure 1. The Naval Weapons Center, China Lake, California. Vicinity map.

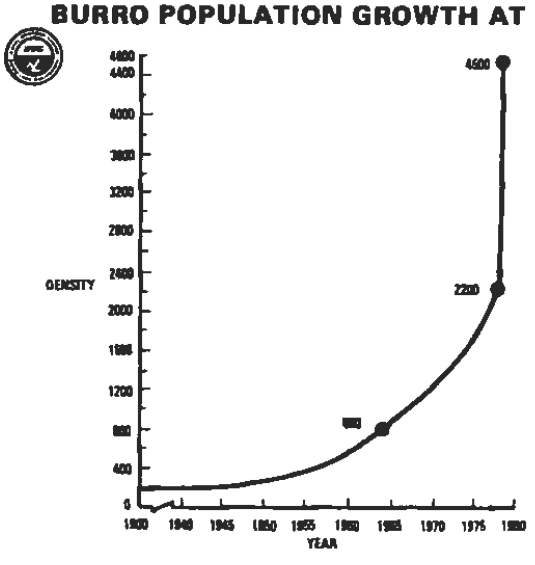

Figure 2. Burro population growth at the Naval Weapons Center. With full legal protection given burros in 1971, burro population throughout the West experienced unchecked exponential growth. Note characteristic J-shaped curve for burro growth at the Naval Weapons Center.

Figure 3a. Neither the automobile nor the burro survived a collision occurring on March 18, 1981, on California State Highway 178 just a few yards from the Naval Weapons Center's boundaries.

Figure 3b. The burro wandered onto the road at 11:15 p.m. The driver did not see it in time to take evasive action and fortunately only received minor injuries.

Figure 4. During daylight hours control tower personnel can spot the burros on the Center's aircraft runways and wave off the pilots; at night (when burros especially seek the warmth of the concrete runways) the animals are virtually impossible to see. The potential for a burro/aircraft collision were extremely high and growing as herds increased. (U.S. Navy photos)

The sole objective of the emergency program was the removal of hazards associated with burro-people conflicts in the inner ranges and airfield (subsequently called the emergency zone - Figure 5). An initial live-removal program, which began in March 1980, was not successful in removing a sufficient number of burros to prevent safety hazards. Only 250 burros were removed during a year of live removal. In March 1981, the Navy switched to a direct reduction or shooting program. A total of 649 burros was shot over two weekends. This effort removed virtually all remaining burros from the emergency zone.

Immediately following the shooting effort, several animal protection groups filed a lawsuit against the Navy. This suit was eventually settled out of court in June 1981. The animal protection groups agreed to remove all burros reentering the emergency zone if the Navy agreed to give them an advance notification before resuming shooting. This modified program functioned successfully until it was succeeded by the long-term management plan in February 1982. A total of 606 burros was removed by the animal protection groups over the remaining seven months of the emergency program. A grand total of 1513 burros was removed during the emergency program.

In February 1982, the Naval Weapons Center initiated its long-term removal program. The aim of this program was the complete removal of all burros from the ranges. The field studies had concluded that burros were incompatible with the native environment. Burros were adversely impacting the native plant and animal species (Figures 6 and 7).

The Navy's decision for the final management plan was as follows:

1 - All burros would be removed from the Center;

2 - Concerned animal protection groups would be permitted to remove animals alive at their own expense;

3 - Eighteen months' maximum would be allotted for removal; and

4 - The Navy retained the option of direct reduction (shooting) if concerned animal protection groups were unwilling or unable to complete the live removal program.

The Center's burro removal program which began amongst public controversy and strong opposition from animal protection groups and had evolved to a compromise, was now at a new threshold. The participating animal protection groups were already indicating that they could not financially continue both the removal and the adoption of burros. Over 4500 burros still remained on Center.

After careful negotiation with several animal protection groups and the Bureau of Land Management, a removal program was devised which satisfied all. Under this program Bureau of Land Management rounded up the burros for the Navy (Figure 8) at a cost of $50.00 per burro (the cost of shooting). The animal protection groups had been paying up to $350.00 per burro for live removal.

Once the burros were delivered by the Bureau of Land Management to a central holding facility in Ridgecrest (built jointly by the Navy, Bureau of Land Management and Death Valley National Monument), the animal protection groups assumed financial and legal responsibility. The animal protection groups fed and cared for the burros until they were adopted. Most of the burros removed from the Naval Weapons Center have been adopted by the general public as pets. Distribution has been nationwide.

The long-term removal program concluded after 18 months in August 1983. A total of 4387 burros had been removed by the Bureau of Land Management. Combining these with the 1513 burros removed during the interim emergency program brings the total removed to 5900. Most of these had been removed within a 2-1/2 year period. The success of this program has brought about several major changes in control of wild herds of burros:

(1) There has been a dramatic increase in public awareness of problems associated with unchecked herds of wild burros.

(2) There is now general public acceptance of the need for removal.

(3) But more importantly, the animal protection groups have accepted the inevitability of burro removal. A few animal protection groups have even committed themselves to work with the Navy, not just dictate policy, to assure the humane treatment of removed burros.

(4) There is now a recognized system for removing burros from federal lands not administered by the Bureau of Land Management. Death Valley National Monument implemented the same program this fall to remove burros from Park Service lands. Other federal agencies are expected to implement similar programs in the near future.

But until burros are controlled regionally, that is, removed from federal lands surrounding the Naval Weapons Center, burros will migrate back onto the base. To prevent burros from reestablishing herds on Center, we have implemented an "annual maintenance program". Each year the Bureau of Land Management burro roundup crew will return to the Naval Weapons Center to conduct a sweep of the ranges. During eight days of removal as many burros as possible will be captured by Bureau of Land Management wranglers and put into the animal protection group's adoption program. Three of the eight days of removal for 1984 have been completed. So far 131 burros have been rounded up. During the remaining five days of removal an estimated 100 more burros should be rounded up.

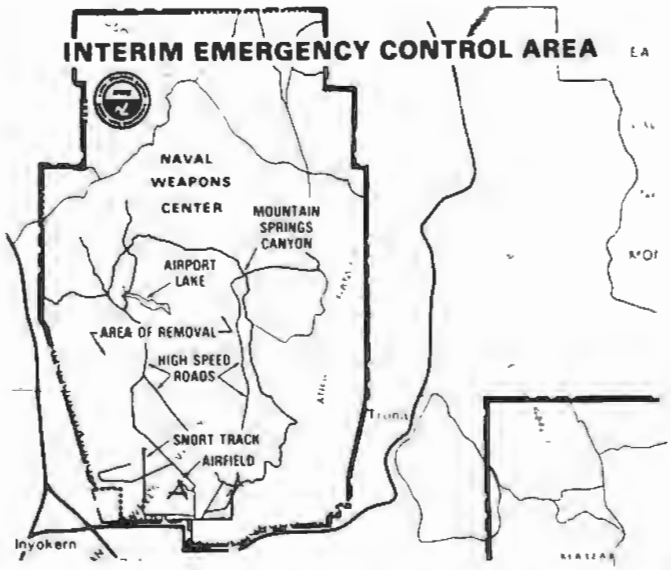

Figure 5. Interim emergency control area. Prior to the completion of field studies documenting the impact of feral burros on the ranges of the Naval Weapons Center, an interim emergency removal program was implemented. The aim of the program was to remove burros from a high-hazard area in order to prevent accidents between burros and Navy personnel in vehicles and aircraft. A total of 1,513 burros were removed under this emergency program.

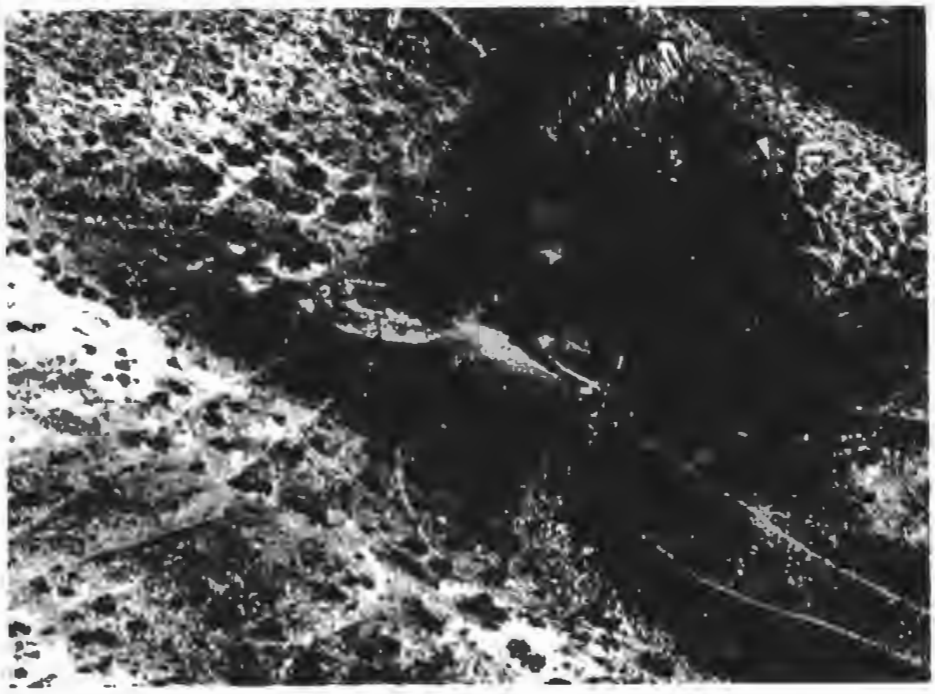

Figure 6. Burro trailing around a spring on the Naval Weapons Center (Hidden Springs). The environmental impacts of trailing are increased when burro activity is concentrated on sloping terrain. Note the terracing effect of the multiple trail systems leading into this heavily used spring.

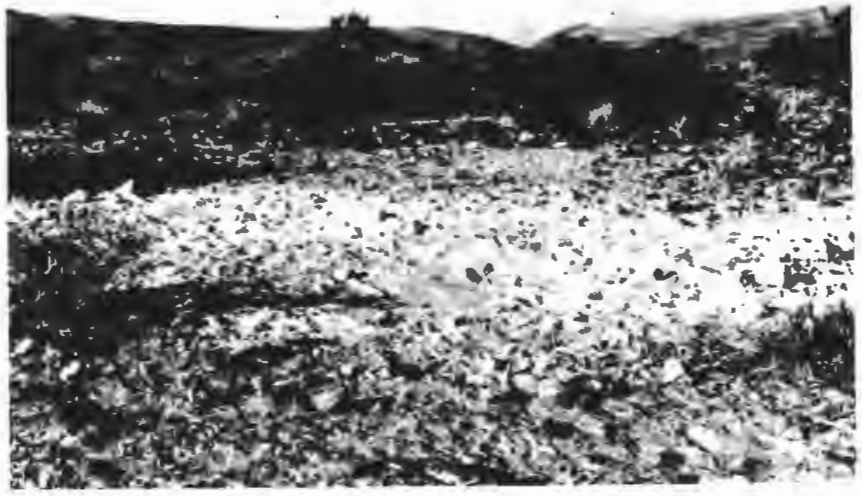

Figure 7. Burro wallow (dusting area) on the Naval Weapons Center (Wilson Canyon East Spring). Burros will congregate in areas where soil conditions allow the formation of these relatively deep wallows. Soil profiles have been disturbed as deeply as 30 cm below the ground surface. Note the total absence of herbaceous vegetation and the dwarfed appearance of the few remaining perennial plants.

This should put the number of burros remaining on base below 100. With Death Valley National Monument beginning their removal program and the Bureau of Land Management continuing to remove burros from their lands around the Center, regional control of burros should become a reality in the next five years. An annual sweep of the base will no longer be needed.

The goal of the burro management at the Naval Weapons Center has been to return the Center's ranges to their natural condition. Reintroducing the native ungulate, the Desert Bighorn Sheep back onto the Center's ranges in December 1983 culminated this effort.

Between 1970 and 1980 burro herds had increased from an estimated 800 to more than 5000. Concurrent with the increase in burros was a resultant decline in bighorn sheep from approximately 20 in 1970 to none in 1980. With the removal of competing burros it was appropriate to reintroduce bighorn sheep.

Center biologists are now monitoring the sheep population. So far the reintroduction seems to be a success. All sheep survived the relocation and appear to be doing well. Present estimates are that 6-10 lambs were born during the last two months. With occasional monitoring the population of re-introduced sheep is expected to grow and prosper.

Figure 8. Burro round-up by the Bureau of Land Management. Between February 1982 and August 1983, Bureau of Land Management wranglers rounded up 4,387 burros as part of the Naval Weapons Center long-term removal program. The Bureau will conduct an annual 8-day sweep of the Center's ranges to prevent burro population from re-establishing on base.